

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A simultaneous electrochemical assay device comprising a cell adapted to [hold] receive a sample, said cell having a surface having a plurality of analyte binding areas, each of said analyte binding areas having a different specific analyte binding substrate; and a plurality of working electrodes adapted to quantitatively measure enzymatic reaction product, each working electrode adjacent to one analyte binding area and separated from the nearest adjacent analyte binding area by a distance and a common reference electrode for said plurality of working electrodes wherein said device does not have means to mix a sample in said cell.
2. (Previously presented) The device claimed in claim 1 wherein said binding substrates each comprise a plurality of different analyte specific proteins.
3. (Previously presented) The device claimed in claim 1 wherein said binding substrates each comprise a different antigen.
4. (Previously presented) The device claimed in claim 1 wherein said binding substrate comprises a different antibody.

5. (Previously presented) The device claimed in claim 1 further comprising at least one auxiliary electrode in said cell.

6. (Withdrawn) A method of testing for a plurality of different analytes in a test solution using a test cell having a plurality of spaced analyte binding sites wherein each binding site is specific for a separate analyte;

locating separate electrodes adjacent to each binding site and spaced from an adjacent binding site;

adding a test solution to said cell;

adding reagent to said cell wherein portions of said reagent react with each of said analytes and wherein said reagent includes at least one label

electrochemically detecting said label at each of said electrodes in less than a time in which label-produced product at any binding site can migrate to an adjacent binding site.

7. (Withdrawn) The method claimed in claim 6 wherein said label contains an enzyme and further comprising adding substrate to said cell wherein said label is detected by measuring a reaction product of said enzyme and said substrate.

8. (Withdrawn) The method claimed in claim 7 wherein said product is measured amperometrically.

9. (Withdrawn) The method claimed in claim 6 wherein said binding site comprises a plurality of analyte specific proteins and said reagent comprises a plurality of analyte specific proteins each labeled with the same label.

10. (Canceled)

11. (Currently amended) An electrochemical assay device comprising a cell adapted to [hold] receive a sample and simultaneously test multiple different analytes, said cell having a surface having a plurality of analyte binding areas, each of said analyte binding areas having a different specific analyte binding substrate; and a plurality of working electrodes and each working electrode adjacent to one analyte binding area and separated from the nearest adjacent analyte binding area by a distance, all of said binding areas coated with a single quiescent solution containing substrate reactive with enzymes bonded to analyte binding areas wherein said device does not have means to mix a sample in said cell.

12. (Previously presented) The assay device claimed in claim 11 wherein said device has a common reference electrode for said plurality of working electrodes.